

What is Claimed is:

1. An interface composition or coating for ceramic fibers of ceramic matrix composites, said interface composition or coating comprising boron-aluminum-nitride.
- 5 2. The interface composition or coating of claim 1 wherein aluminum nitride (AlN) or aluminum oxynitride (AlON) is nanodispersed in boron nitride.
3. A ceramic matrix composite comprising ceramic fibers coated with boron-aluminum nitride.
- 10 4. The ceramic matrix composite of claim 3 wherein the ceramic fibers are coated with aluminum nitride nanodispersed in boron nitride.
- 15 5. A method for coating a ceramic carbide fiber with boron-aluminum-nitride comprising
 - (a) extracting metal from the ceramic carbide fiber to form a thin uniform carbon layer on the ceramic carbide fiber; and
 - (b) transforming the carbon layer on the ceramic carbide fiber to boron-aluminum-nitride by reacting the carbon layer with boron and
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